

INTERNATIONAL SEARCH REPORT

Internat Application No

PCT/GB 03/04622

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C01B3/38 C10G2/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C01B C10G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 03 016250 A (ABBOTT PETER EDWARD JAMES ;JOHNSON MATTHEY PLC (GB)) 27 February 2003 (2003-02-27) cited in the application the whole document	1,5,6
A	EP 0 516 441 A (BRITISH PETROLEUM CO PLC) 2 December 1992 (1992-12-02) page 1, line 33 - line 57 page 4, line 15 - line 46 claims 1,4-6	1,5,6
A	US 4 888 130 A (BANQUY DAVID L) 19 December 1989 (1989-12-19) figure claim 1	1,2



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

20 February 2004

Date of mailing of the international search report

27/02/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5618 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax (+31-70) 340-3016

Authorized officer

Harf-Bapin, E

INTERNATIONAL SEARCH REPORT

Internat~~l~~ Application No

PCT/GB 03/04622

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 233 076 A (FOSTER WHEELER ENERGY LTD) 19 August 1987 (1987-08-19) page 1; claim 1 figure 1	1
A	WO 00 09441 A (ABBOTT PETER EDWARD JAMES ; ICI PLC (GB)) 24 February 2000 (2000-02-24) cited in the application figure 3 figures 1-6, 10	1, 5, 6
P, A	WO 03 062142 A (ABBOTT PETER EDWARD JAMES ; JOHNSON MATTHEY PLC (GB); FERNIE MARTIN) 31 July 2003 (2003-07-31) the whole document	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International publication No

PCT/GB 03/04622

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03016250	A	27-02-2003	WO 03016250 A1	27-02-2003
EP 0516441	A	02-12-1992	AT 165073 T	15-05-1998
			AU 663082 B2	28-09-1995
			AU 1717292 A	03-12-1992
			CA 2068115 A1	01-12-1992
			CN 1067067 A ,B	16-12-1992
			DE 69225089 D1	20-05-1998
			DE 69225089 T2	06-08-1998
			EP 0516441 A1	02-12-1992
			FI 922352 A	01-12-1992
			JP 6184559 A	05-07-1994
			MX 9202577 A1	01-01-1993
			NO 922120 A	01-12-1992
			NZ 242569 A	26-07-1994
			ZA 9203385 A	27-01-1993
US 4888130	A	19-12-1989	FR 2372116 A1	23-06-1978
			AU 512311 B2	02-10-1980
			CA 1076361 A1	29-04-1980
			DE 2758395 A1	28-09-1978
			EG 13184 A	31-12-1980
			ES 467603 A1	16-10-1978
			GB 1569014 A	11-06-1980
			IT 1105173 B	28-10-1985
			JP 1054110 C	23-07-1981
			JP 53116294 A	11-10-1978
			JP 55046961 B	27-11-1980
			MX 5666 E	06-12-1983
			MY 10084 A	31-12-1984
			NO 774416 A ,B,	25-09-1978
			OA 5906 A	31-05-1981
			US 4999133 A	12-03-1991
EP 0233076	A	19-08-1987	AU 587308 B2	10-08-1989
			AU 6875087 A	20-08-1987
			CA 1263671 A1	05-12-1989
			DE 3780182 D1	13-08-1992
			DE 3780182 T2	18-02-1993
			EP 0233076 A2	19-08-1987
			ES 2033825 T3	01-04-1993
			JP 1801220 C	12-11-1993
			JP 3022856 B	27-03-1991
			JP 62228035 A	06-10-1987
			NZ 219228 A	27-09-1989
			US 4782096 A	01-11-1988
			ZA 8700912 A	30-09-1987
WO 0009441	A	24-02-2000	AU 742314 B2	20-12-2001
			AU 4923299 A	06-03-2000
			WO 0009441 A2	24-02-2000
			ID 27781 A	26-04-2001
			US 2002006968 A1	17-01-2002
WO 03062142	A	31-07-2003	WO 03062142 A1	31-07-2003